

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

1. (Canceled)
2. (Currently Amended) A transgenic mouse the genome of which contains a ~~disruption of~~ FHIT gene disruption, wherein said disruption comprises a termination codon in ~~an~~ exon 5 ~~coding region~~, and wherein said mouse (a) has increased susceptibility to visceral and sebaceous tumors relative to FHIT +/+ mice, or (b) displays increased tumor formation upon being exposed to N-nitrosomethylbenzamine (~~hereinafter "NMBA"~~) relative to FHIT +/+ mice that have been exposed to N-nitrosomethylbenzamine.
3. (Currently Amended) A transgenic mouse, wherein said mouse is chimeric for a ~~disruption of~~ FHIT gene disruption, wherein said disruption comprises a termination codon in ~~an~~ exon 5 ~~coding region~~, and wherein FHIT +/- progeny of said mouse (a) have increased susceptibility to visceral and sebaceous tumors relative to FHIT +/+ mice, or (b) display increased tumor formation upon being exposed to ~~NMBA~~ N-nitrosomethylbenzamine relative to FHIT +/+ mice that have been exposed to N-nitrosomethylbenzamine.
4. (Canceled)
5. (Currently Amended) The transgenic mouse of claim 23, wherein said disruption of the FHIT gene is in both germline and somatic cells.
6. (Previously Amended) The transgenic mouse of claim 2, wherein said disruption of the FHIT gene is homozygous.

7. (Previously Amended) The transgenic mouse of claim 2, wherein said disruption of the FHIT gene is heterozygous.

8. (Previously Amended) The transgenic mouse of claim 6 or 7, said mouse having increased susceptibility to visceral and sebaceous tumors relative to FHIT +/- mice.

9. (Currently Amended) The transgenic mouse of claim 6 or 7, wherein said mouse displays increased tumor formation upon being exposed to ~~NMBA~~ N-nitrosomethylbenzylamine relative to FHIT +/- mice.

10.-12. (Canceled)

13. (Currently Amended) A method of testing carcinogenicity of a molecule, comprising:

(a) administering said molecule to the transgenic mouse of claim 2, 5, 6 or 7; and

(b) comparing the rate of tumor formation in said transgenic mouse with a control mouse of the same genotype to which the molecule is not administered;

wherein an increased rate of tumor formation in the transgenic mouse following administration of the test molecule, as compared to the rate of tumor formation in the control mouse, is indicative that the molecule is carcinogen.

14. (Canceled)

15. (Currently Amended) A method of testing the therapeutic efficacy of a molecule in treating or preventing cancer comprising:

(a) administering said molecule to the transgenic mouse of claim 2, 5, 6 or 7; and

(b) comparing the rate of tumor formation in said transgenic mouse with a control mouse of the same genotype to which the molecule is not administered;

wherein a reduced rate of tumor formation in the transgenic mouse following

administration of the test molecule, as compared to the rate of tumor formation in the control mouse, is indicative that the molecule has therapeutic or prophylactic value for cancer.

16. (Canceled)

17. (Original) The method of claim 15, wherein the cancer is a gastrointestinal cancer.

18. (Canceled)

19. (Original) The method of claim 15, where in the cancer is Muir-Torre Syndrome-related cancer.

20. (Canceled)

21. (Original) The method of claim 15, wherein the cancer is hereditary non-polyposis colorectal cancer.

22. (Canceled)